

# Mineral Industry Surveys

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## MANGANESE IN OCTOBER 2002

In October, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was estimated as 33,500 metric tons (t), which was an 8% increase from that for the previous month, according to the U.S. Geological Survey. The figure for October increases to 35,900 t when estimates for annual respondents are added on the basis of 2000 data. Corresponding industry stocks of ore at the end of the month were 157,000 t, which includes an estimate for annual respondents on the basis of 2000 data. This was a decrease of 8% from that of the previous month. (Data for the most recent 13 months are plotted in the graph on page 2.)

Foreign trade data for October will appear in a subsequent report. The data for September tabulated in this report indicate that the total imports for consumption, on a manganese content basis, decreased by 17% from those for August 2002 (table 1). Total exports, on a manganese content basis, decreased by about 57% from those for the previous month.

The Defense National Stockpile Center's (DNSC) Annual Materials Plan (AMP) for fiscal year 2003, which specifies the maximum annual quantities of stockpile materials eligible for disposal, became effective October 1, 2002, the beginning of the fiscal year. Under this AMP, the specified quantities for manganese materials were 27,216 t for natural battery-grade ore, 2,732 t for synthetic manganese dioxide, 36,287 t for chemical-grade ore, 226,796 t for metallurgical-grade ore, 22,680 t for the manganese ferro group, and 1,814 t for electrolytic manganese metal. These quantities were the same as those in the AMP for fiscal year 2002, with the exception of the manganese ferro group. The eligible quantity in this group decreased from

68,039 t to 22,680 t.

In response to its solicitation issued on October 18, the DNSC reported cash disposals of 14,515 t of high-carbon ferromanganese in November to BSI Commodities Inc., Pittsburgh, PA, and Minerais U.S. LLC, Hillsborough, NJ. The quantity of high-carbon ferro manganese initially offered was 22,680 t, the total amount available under the fiscal year 2003 AMP.

On October 11, the South African Government issued its final version of a new mining charter, as required by the South African Mineral and Petroleum Resources Development Act of 2002. The charter calls for a 26% ownership of South African mining industry assets by Historically Disadvantaged South Africans (HDSAs) in 10 years, with a 15% HDSA-ownership level in 5 years (Department of Minerals and Energy and others, 2002<sup>1</sup>). The charter defines HDSAs as "any person, category of persons or community, disadvantaged by unfair discrimination before the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) came into operation."

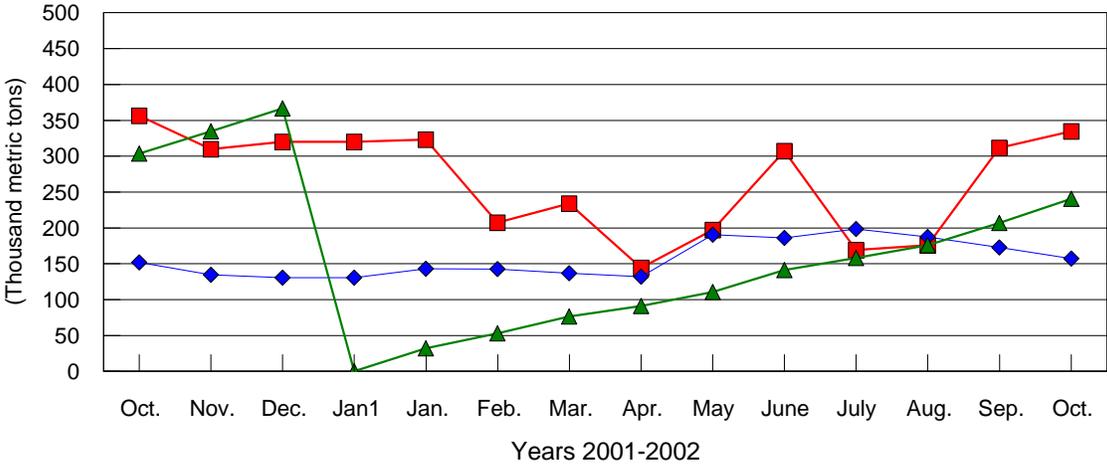
### Internet Reference Cited

Department of Minerals and Energy, Chamber of Mines, South African Mining Development Association, and National Union of Mineworkers, 2002, Broad based socio economic empowerment charter for the mining industry, October 11, accessed December 23, 2002, at URL <http://www.bullion.org.za>.

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<sup>1</sup>A reference that includes a section twist (§) is found in the Internet Reference Cited section.

Manganese ore: U.S. reported consumption and industry stocks, exclusive of iron and steel plants 1/



■ Monthly consumption times 10    ▲ Consumption for year to date  
◆ Stocks, end-of-month

1/ Includes revisions, if any, for months prior to last month shown.

TABLE 1  
SELECTED U.S. FOREIGN TRADE IN MANGANESE 1/

(Metric tons, manganese content) 2/

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2001:						
September	2,520	38,900	41,400	215	740	955
January-September	178,000	318,000	496,000	3,540	7,200	10,700
2002:						
January	23,900	42,200	66,100	775	1,050	1,830
February	34,400	29,700	64,000	453	774	1,230
March	19,300	19,000	38,300	401	930	1,330
April	34,600	35,500	70,100	775	919	1,700
May	1,670	16,800	18,500	643	806	1,450
June	36,100 3/	21,100	57,100	774	1,020	1,800
July	23,600 3/	28,700	52,300	876	728	1,600
August	15,000	34,900 3/	49,900	1,380	818	2,200
September	14,600	36,600	51,200	121	1,230	1,360
Total	203,000	264,000	467,000	6,200	8,280	14,500

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

3/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN SEPTEMBER 2002 1/

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	--	--	--	34,400	22,900	\$14,200,000
Brazil	--	--	--	3	2	2,960
Canada	--	--	--	419	293	174,000
France	--	--	--	4,000	2,640	1,890,000
Georgia	--	--	--	4,860	3,680	2,180,000
India	--	--	--	770	424	446,000
Korea, Republic of	--	--	--	3,000	1,980	1,250,000
Mexico	--	--	--	4,800	3,140	2,320,000
Norway	2,220	1,290	\$1,360,000	8,430	4,980	5,080,000
Romania	--	--	--	7,290	4,800	3,340,000
South Africa	23,200	15,500	10,000,000	95,900	64,100	40,100,000
Spain	--	--	--	1,430	885	919,000
Total	25,500	16,800	11,400,000	165,000	110,000	71,800,000
Total, general imports	25,100	16,600	11,200,000	166,000	110,000	72,000,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN SEPTEMBER 2002 1/

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
<b>Low carbon:</b>						
Canada	--	--	--	25	20	\$19,700
China	157	145	\$144,000	1,830	1,700	1,820,000
Japan	90	83	93,700	2,240	1,220	1,610,000
Mexico	--	--	--	19	16	25,500
Norway	--	--	--	511	414	388,000
South Africa	180	166	221,000	3,960	3,660	4,870,000
Spain	--	--	--	36	29	27,500
Total, low carbon	427	394	459,000	8,620	7,060	8,760,000
Total, general imports of low carbon	427	394	459,000	8,620	7,060	8,760,000
<b>Medium carbon, 1%-2% C:</b>						
Austria	62	49	38,500	103	80	62,600
Brazil	1,300	1,050	665,000	1,340	1,080	701,000
China	--	--	--	1,500	1,200	796,000
Japan	--	--	--	22	18	22,900
Korea, Republic of	--	--	--	1,500	1,200	780,000
Mexico	79	60	68,600	3,370	2,640	2,440,000
Norway	--	--	--	2,280	1,780	1,040,000
South Africa	4,450	3,620	2,460,000	17,800	14,500	9,210,000
Spain	--	--	--	652	407	477,000
Total, m.c., 1%-2% C	5,890	4,780	3,230,000	28,500	22,900	15,500,000
Total, general imports of m.c., 1%-2% C	5,890	4,780	3,230,000	28,500	22,900	15,500,000
<b>Medium carbon, 2%-4% C:</b>						
Ukraine	--	--	--	3,050	300	1,100,000
<b>High carbon:</b>						
Australia	--	--	--	1,300	985	385,000
Austria	59	44	35,000	79	60	46,600
Brazil	2,600	2,050	1,090,000	7,810	6,110	2,960,000
Canada	35	26	17,500	88	68	45,400
France	3,800	2,990	1,500,000	25,600	21,000	9,250,000
India	--	--	--	19,700	15,000	7,710,000
South Africa	7,900	6,170	3,100,000	81,200	63,400	29,700,000
Total, high carbon	14,400	11,300	5,740,000	136,000	107,000	50,100,000
Total, general imports of high carbon	14,400	11,300	5,740,000	136,000	107,000	50,100,000
Grand total	20,700	16,500	9,430,000	176,000	137,000	75,500,000
Grand total, general imports	20,700	16,500	9,430,000	176,000	137,000	75,500,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS OF MANGANESE ORE (20% OR MORE Mn) IN SEPTEMBER 2002 1/ 2/

(Metric tons)

Source	20% - 47% Mn		47% or more Mn		Total	
	Gross weight	Mn content	Gross weight	Mn content	Gross weight	Mn content
Belgium	--	--	18	13	18	13
Gabon	--	--	23,100	11,700	23,100	11,700
Total	--	--	23,100	11,700	23,100	11,700
Year to date:						
Australia	--	--	22,700	12,000	22,700	12,000
Belgium	--	--	145	102	145	102
Brazil	29,900	12,800	34	34	29,900	12,800
France	--	--	10	10	10	10
Gabon	45,100	19,800	187,000	99,200	232,000	119,000
Mexico	2,910	1,100	--	--	2,910	1,100
Morocco	--	--	40	21	40	21
South Africa	--	--	86,500	41,800	86,500	41,800
Total	77,900	33,700	296,000	153,000	374,000	187,000

-- Zero.

1/ Quantities for general imports and imports for consumption are identical.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN SEPTEMBER 2002 1/

(Metric tons, gross weight, unless otherwise specified)

Source	Manganese dioxide				Manganese metal			
	Quantity	Customs value	Year to date		Unwrought		Other	
			Quantity	Customs value	Quantity	Year to date	Quantity	Year to date
Australia	2,990	\$4,100,000	17,200	\$23,700,000	--	--	--	--
Belgium	55	87,200	470	833,000	--	--	--	(2/)
Canada	--	--	--	--	--	(2/)	--	16
China	--	--	415	531,000	1,040	3,920	20	108
France	--	--	--	--	--	--	--	43
Germany	20	112,000	68	277,000	398	2,970	2	24
Greece	179	223,000	569	725,000	--	--	--	--
Hong Kong	126	129,000	126	129,000	--	--	--	--
Ireland	524	716,000	4,640	6,130,000	--	--	--	--
Japan	18	29,700	1,160	1,950,000	--	--	--	11
Mexico	--	--	25	184,000	--	--	--	--
Netherlands	--	--	91	122,000	--	--	--	62
Poland	--	--	--	--	--	--	--	20
South Africa	857	1,200,000	1,960	2,840,000	1,780	9,200	--	--
Spain	--	--	--	--	2	138	--	--
United Kingdom	--	--	93	130,000	--	46	--	(2/)
Total	4,770	6,590,000	26,800	37,600,000	3,220	16,300	22	285
Total, general imports	4,770	6,590,000	26,900	37,600,000	3,220	16,300	22	285

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Note: Imports for consumption of metallic manganese waste and scrap totaled 180 tons, of which 99 tons was from Canada and 81 tons was from South Africa, to give a year-to-date total of 2,181 tons.

Source: U.S. Census Bureau.

TABLE 6  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN 2002 1/

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal 2/	
	September	Year to date	September	Year to date	September	Year to date	September	Year to date
Australia	15	155	--	5	--	21	--	--
Belgium	--	--	--	--	--	--	18	484
Brazil	--	151	--	8	--	11	(3/)	5
Canada	145	2,160	481	4,910	--	243	9	154
China	--	1,190	--	--	--	--	--	67
Colombia	--	--	--	--	--	--	--	8
Dominican Republic	9	31	--	--	--	--	--	--
Ecuador	--	--	--	--	--	--	--	1
France	--	--	--	--	5	27	--	--
Germany	19	1,780	--	--	--	--	--	9
Ghana	--	--	--	16	--	--	--	--
Hong Kong	--	18	--	--	--	1	(3/)	1
Indonesia	--	30	--	--	--	4	--	--
Italy	--	1,260	--	--	--	--	--	15
Japan	--	--	--	60	--	--	95	781
Korea, Republic of	--	48	--	--	--	--	--	19
Malaysia	--	--	--	--	--	--	--	4
Mexico	--	1,990	562	910	--	67	35	80
Netherlands	--	1,590	--	--	4	8	--	2
Norway	--	457	--	--	--	--	--	3
Poland	24	634	--	--	--	--	--	--
Saudi Arabia	--	--	--	--	--	--	--	20
Singapore	--	--	--	--	--	--	--	(3/)
Spain	--	--	--	--	--	8	--	--
Sri Lanka	--	--	--	--	--	5	--	--
Sweden	19	409	--	--	--	--	32	87
Switzerland	10	99	--	--	--	--	--	--
Taiwan	--	15	--	--	--	--	--	26
Trinidad and Tobago	--	--	10	10	--	--	--	--
Turkey	--	--	--	3	--	--	--	--
United Kingdom	--	265	--	--	--	--	--	(3/)
Venezuela	--	119	--	7	--	--	--	--
Total	241	12,400	1,050	5,930	9	395	189	1,770

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes manganese-aluminum, some other alloys, and waste and scrap.

3/ Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 261 tons, all of which went to Canada, to give a year-to-date total of 2,000 tons.

Source: U.S. Census Bureau.

TABLE 7  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN SEPTEMBER 2002, BY CLASS 1/

Class	Gross weight (metric tons)	Value 2/ (thousands)	Principal sources and destinations: gross weight (metric tons); value 2/ (thousands)	Year to date		Principal sources and destinations: gross weight (metric tons); value 2/ (thousands)
				Gross weight (metric tons)	Value 2/ (thousands)	
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	177	\$245	South Africa 72; \$175	1,680	\$1,720	Mexico 1,010; \$346
Sulfates, basket category, including manganese sulfate	5,440	2,390	China 3,070; \$1,120	30,400	17,300	Mexico 14,200; \$7,210
Potassium permanganate	104	243	Czech Republic 65; \$126	1,250	2,150	Czech Republic 554; \$1,060
Manganites, manganates, and other permanganates	67	319	Germany 67; \$319	223	775	Germany 149; \$709
<b>Exports:</b>						
Manganese dioxide	266	509	Belgium 57; \$147	2,740	2,930	Canada 1,530; \$528
Manganese oxides other than dioxide	515	664	Canada 267; \$103	3,940	4,060	Canada 2,510; \$992
Sulfates, basket category, including manganese sulfate	1,250	715	Canada 944; \$387	14,400	8,440	Canada 11,900; \$3,600
Potassium permanganate	127	212	Saudi Arabia 30; \$26	578	1,130	Canada 254; \$446
Manganites, manganates, and other permanganates	4	21	Taiwan 3; \$18	170	881	Japan 93; \$455

1/ Data are rounded to no more than three significant digits.

2/ For imports, Customs value; for exports, f.a.s. value.

Source: U.S. Census Bureau.